

REMARKS

Claims 1, 6, 8-10, 14, 19, 21-23, 27, 32 and 34-36 were elected as a single disclosed species under 35 U.S.C. §121.

By the present amendment, claims 2-5, 7, 11-13, 15-18, 20, 24-26, 28-31, 33 and 37-39 have been canceled without prejudice or disclaimer.

New claims 40-42 have been added.

Claims 1, 6, 8, 10, 14, 19, 21, 23, 26, 27, 32, 34 and 36 have been amended to clarify the invention.

Claims 1, 6, 8-10, 13, 14, 19, 21, 22, 23, 26, 27, 32, 34-36, 39-42 are pending in the application.

In the Office Action, the Examiner rejected claims 1, 8-10, 14, 21-23, 27 and 34-36 under 35. U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,265,200 to Edgar.

Claims 6, 19 and 32 were rejected under 35 U.S.C. §103(a) as being unpatentable over Edgar in view of U.S. Patent No. 6,388,679 to Kluck et al.

In view of the arguments that follow, Applicant respectfully traverses the Examiner's rejection of claims 1, 6, 8-10, 14, 19, 21-23, 27, 32 and 34-36.

Election of Species

Applicant previously elected claims 1, 6, 8-10, 14, 19, 21-23, 27, 32 and 34-36 as a single disclosed species under 35 U.S.C. §121. Applicant respectfully submits that once elected species is subsequently found allowable, non-elected claims that depend

from the elected claims or otherwise include the limitations of the allowable claims will be rejoined. See M.P.E.P. §821.04.

Rejections Under 35 U.S.C. §102(b)

The Examiner rejected claims 1, 8-10, 14, 21-23, 27 and 34-36 under 35. U.S.C. §102(b) as being anticipated by Edgar. The rejection is respectfully traversed.

Applicant's amended claim 1 recites an image processing method comprising the steps of: generating image data from an; obtaining one multi-resolution image data in each of a plurality of frequency bands by converting the image data into multiple resolutions; and quantifying a sense of contrast of an image, based on the image data.

The Examiner alleged that Edgar discloses the step of quantifying a sense of contrast of an image represented by image data, based on the image data (met by the build histogram 54 and the best fit curve 56 which is functionally altered in accordance with the best fit curve generated from the original image digitized at block 52 (Fig. 3 and 4; col. 9, lines 20 – col. 13, line 56)).

Applicant respectfully submits that Edgar does not disclose an image processing method for "obtaining one multi-resolution image data in each of a plurality of frequency bands by converting the image data into multiple resolutions," as recited in claim 1.

Edgar discloses an image capture and display system that captures or digitizes an image where a grey scale histogram is created from an image. The histogram builds a graph showing the frequency of occurrence for each level in the gray scale, and contains information about the image employed in an image processor utilized to

generate a corrected image. Edgar further discloses that the image processor performs a best fit regression function, such as a polynomial, of the histogram in which image data spans a fully gray scale range between limits selected to include a percentage of the histogram. The percentage of the histogram encompasses a range from calculated values of black to white in the image. The best fit function of the fully gray scale range decreases from polynomial values, and contrasts of the image data are adjusted to set white and black reference levels. The best fit regression function of a fully gray scale range to correct an image in Edgar is not analogous to an image processing method for "obtaining one multi-resolution image data in each of a plurality of frequency bands by converting the image data into multiple resolutions."

In view of the foregoing reasons, Applicant submits that Edgar does not disclose claim 1 and the rejection of claim 1 should be withdrawn.

Applicant further submits that claims 14 and 27, which are analogous to claim 1, are allowable for at least the reasons stated above with regards to claim 1.

Dependent claims 6, 8 and 9; 19, 21, and 22; 32, 34 and 35 are allowable for at least the same reason stated above with regards to the respective base claims 1, 14 and 27.

Applicant further submits that Edgar does not disclose "obtaining one multi-resolution luminance image data and/or one multi-resolution color image data in each of a plurality of frequency bands by converting the luminance data and/or the color data into multiple resolutions;" and "carrying out image processing for changing luminance

information of an image represented by image data on the image data based on color information of the image," as recited in claim 10.

Again, Edgar discloses an image capture and display system that captures or digitizes an image where a grey scale histogram is created from an image. The histogram builds a graph showing the frequency of occurrence for each level in the gray scale, and contains information about the image employed in an image processor utilized to generate a corrected image. The image processor performs a best fit regression function of a fully gray scale range that decreases from polynomial values and contrasts of the image data are adjusted to set white and black reference levels. Edgar further discloses determining a red, green, and blue scale levels for cropped images where the gray scale graph elements are pointed to by the red, green, and blue levels.

The best fit regression function of a fully gray scale range to correct an image in Edgar is not analogous to an image processing method for "obtaining one multi-resolution luminance image data and/or one multi-resolution color image data in each of a plurality of frequency bands by converting the luminance data and/or the color data into multiple resolutions." Moreover, there is nothing in Edgar that discloses or teaches "carrying out image processing for changing luminance information of an image represented by image data on the image data based on color information of the image."

In view of the foregoing reasons, Applicant submits that Edgar does not disclose claim 10 and the rejection of claim 10 should be withdrawn. Dependent claim 13 and

newly added claim 40 are allowable for at least the same reason stated above with regards to the respective base claim 10.

Applicant further submits that Edgar does not disclose a "multi-conversion means for obtaining one multi-resolution luminance image data and/or one multi-resolution color image data in each of a plurality of frequency bands by converting the luminance data and/or the color data into multiple resolutions," as recited in claim 23.

Edgar discloses an image processor that performs a best fit regression function of a fully gray scale range that decreases from polynomial values, and contrasts of the image data are adjusted to set white and black reference levels. A histogram contains information about the image employed in an image processor and is utilized to generate a corrected image. The best fit regression function of a fully gray scale range to correct an image in Edgar is not analogous to an image processing apparatus comprising "multi-conversion means for obtaining one multi-resolution luminance image data and/or one multi-resolution color image data in each of a plurality of frequency bands by converting the luminance data and/or the color data into multiple resolutions."

Applicant further submits that claim 36, which is analogous to claim 23, is allowable for at least the reasons stated above with regards to claim 23. Dependent claims 26 and 39, and newly added claims 41 and 42 are allowable for at least the same reasons with regards to their respective base claims 23 and 36.

Additional Prior Art

The Examiner alleged that Edgar discloses generating a histogram of the multi-resolution image data in each of the frequency bands is met by the build histogram 54 (Fig. 3, and col. 9, line 20 – col. 10, line 64); quantifying the sense of contrast based on the luminance histogram and/or the color histogram in each of the frequency bands is met by the best fit curve 56 which is functionally altered in accordance with the best fit curve generated from the original image digitized at block 52 and the corrected image according to best fit 60 which is resulting in a digital image corrected automatically for contrast (Figs. 3 and 4, and col. 9, line 20 – col. 13, line 56).

Although the Examiner alleged that Edgar discloses generating a histogram of the multi-resolution image data in each of the frequency bands, the Examiner admitted that Edgar does not disclose obtaining multi-resolution image data in a plurality of frequency bands by converting the image data into multiple resolutions. The Examiner alleged that Kluck et al. teach that high-level graphics commands are intercepted by a multi-resolution system mimicking a display driver, a high-level graphics commands are interpolated using a resolution conversion ratio, modified high-level graphics commands are sent to the true display driver and an image is displayed at an apparent resolution lower than the background resolution. (abstract; and col. 6, line 45 – col. 8, line 39).

Kluck et al. discloses a multi-resolution system mimicking a display driver, for viewing at different resolutions. A user can select from a menu a resolution at which various viewing areas should be displayed. The multi-resolution system acts like a filter by interpreting and manipulating high-level graphics commands and passes the result

on to a true display driver. The high-level graphics commands are then interpolated to a desired resolution selected by the user. The multi-resolution system of Kluck et al. that mimics a display driver for a user to adjust resolution of programs does not obtain "one multi-resolution image data in each of a plurality of frequency bands." Moreover, the multi-resolution system of Kluck et al. is not analogous to an image processing method or apparatus comprising "obtaining one multi-resolution image data in each of a plurality of frequency bands by converting the image data into multiple resolutions" as recited in claim 1; or "obtaining one multi-resolution luminance image data and/or one multi-resolution color image data in each of a plurality of frequency bands by converting the luminance data and/or the color data into multiple resolutions," as recited in claims 10. Therefore, Kluck et al. do not cure the deficiencies of Edgar.

Conclusion

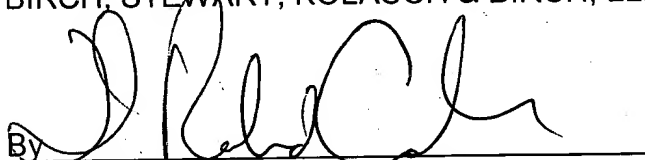
In view of the foregoing amendments and remarks, Applicant respectfully requests the reconsideration and reexamination of this application and the timely allowance of the pending claims.

Pursuant to the provisions of 37 C.F.R. § 1.17 and §1.136(a), Applicant hereby petitions for an extension of two (2) months in which to file a response to the outstanding Office Action. The required fee of \$420.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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